$$\therefore x = p' \sin(qt), \tag{18}$$

$$\text{where } p' = \frac{\omega\sqrt{(A + A_1)H_0}}{Cn}.$$

These equations (17) and (18) evidently answer to a nutation of the extremity of the axis, not in a circle, as when the rings are left out of consideration, but in an ellipse whose semi-axes are (p) and (p'), and the period of nutation

$$\frac{2\pi}{q}.$$

MONDAY, MAY 25, 1863.

The Very Rev. Charles Graves, D. D., President, in the Chair.

The Secretary read the following extract of a letter from F. J. Foot, Esq., to the Rev. Professor Haughton :—

"*Athlone, May* 13, 1863.

"On the evening that I read my botanical paper at the Academy, in reply to a question put to me by Dr. Osborne, I stated positively that digitalis grows on the limestone of Burren. Since then I mentioned, at the Natural History Society, of its occurring plentifully in the neighbourhood of Mullingar, and also near this. Now, most of the Floras say of digitalis, that it *does not occur in limestone districts.*

"I find that candour demands of me to modify my statement a little. Quite true that digitalis grows in Burren and in the midland counties; but it always grows on *cherty limestone, or its debris.* I must allow that I never saw either *digitalis* or *heather* growing on *pure unsiliceous* limestone. In Burren there are many very siliceous beds of limestone, and on them, in shady places, digitalis is by no means uncommon. Where it occurs at Mullingar and in this neighbourhood, the beds are what has been called *calp*, i. e. black earthy limestone, with bands of chert and shale.

"In fact, if one meets digitalis in a limestone district, they may feel pretty certain that they are on, or very near to, the black calpy limestone."

The Rev. Samuel Haughton, M. D., read a paper "On the Chemical and Mineral Composition of the Granites of Donegal."